

WHAT IS CLAIMED IS:

1. A component-mounting apparatus comprising:
a holding device for holding a component while moving horizontally; and
a positioning device having a sloped portion for engaging and positioning the component held by the holding device when the holding device brings the component into contact with the sloped portion.
2. The component-mounting apparatus according to Claim 1, wherein
the positioning device comprises a first rotatable roller member having a sloped side surface with which the component comes into contact; and
the horizontal movement speed of the holding device substantially agrees with the horizontal component of the peripheral velocity of the first roller member, with which the component comes into contact.
3. The component-mounting apparatus according to Claim 1, wherein the positioning device comprises a first rotatable roller member having a sloped side surface with which the component comes into contact and an auxiliary roller member rotatably disposed opposite the first roller member and having a sloped side surface with which the component comes into contact.
4. The component-mounting apparatus according to Claim 3, wherein the horizontal movement speed of the holding device substantially agrees with the horizontal component of the peripheral velocity of the first roller member and the auxiliary roller member, with which the component comes into contact.
5. The component-mounting apparatus according to Claim 4, wherein the first roller member and the auxiliary roller member have a first rotating shaft

extending in a direction substantially perpendicular to the horizontal movement direction of the holding device.

6. The component-mounting apparatus according to Claim 5, wherein the first roller member and the auxiliary roller member share said first rotating shaft.

7. The component-mounting apparatus according to Claim 3, wherein the first roller member and the auxiliary roller member have a first rotating shaft extending in a direction substantially perpendicular to the horizontal movement direction of the holding device.

8. The component-mounting apparatus according to Claim 2, wherein the first roller member has a first rotating shaft extending in a direction substantially perpendicular to the horizontal movement direction of the holding device.

9. The component-mounting apparatus according to claim 8, further comprising a control device for controlling the holding device and/or the first rotating shaft,

wherein the control unit controls at least either the holding device or the first rotating shaft so as to satisfy the following equation:

$$V = 2\pi AN$$

wherein V is the horizontal movement speed of the holding device; N is the number of revolutions of the first roller member and/or the auxiliary roller member; and A is the distance from the center of rotation of the first roller member and/or the auxiliary roller member to the conveying line of the holding means.

10. The component-mounting apparatus according to claim 5, further comprising a control device for controlling the holding device and/or the first

rotating shaft,

wherein the control unit controls at least either the holding device or the first rotating shaft so as to satisfy the following equation:

$$V = 2\pi AN$$

wherein V is the horizontal movement speed of the holding device; N is the number of revolutions of the first roller member and/or the auxiliary roller member; and A is the distance from the center of rotation of the first roller member and/or the auxiliary roller member to the conveying line of the holding means.

11. A component-mounting apparatus comprising:

a holding device for holding a component while moving horizontally; and

a plurality of positioning devices each having a sloped portion for engaging and positioning the component held by the holding device when the holding device brings the component into contact with the sloped portion;

wherein each positioning device comprises a first rotatable roller member having a sloped side surface with which the component comes into contact; and

the horizontal movement speed of the holding device substantially agrees with the horizontal component of the peripheral velocity of the first roller member, with which the component comes into contact;

said plurality of the first roller members are arranged in the movement direction of the holding device; and

the holding device has a rotating portion that rotates with the component held about an axis substantially perpendicular to the movement direction of the holding device.

12. The component-mounting apparatus according to any one of Claims 2 to 8, further comprising an applying device for applying a paste material to the component, the applying device being disposed downstream of the first roller

member and/or the auxiliary roller member in the movement direction of the component.

13. The component-mounting apparatus according to Claim 12, wherein the applying device comprises a second rotatable roller member having a circumferential surface provided with the paste material to apply the paste material to the component when the component comes into contact with the circumferential surface; and

the horizontal movement speed of the holding device substantially agrees with the horizontal component of the peripheral velocity of the second roller member, with which the component comes into contact.

14. The component-mounting apparatus according to Claim 13, wherein the second roller member has a second rotating shaft extending in a direction substantially perpendicular to the horizontal movement direction of the holding device.

15. A method of positioning a moving component, comprising:
providing a component-positioning unit including a rotating shaft;
disposing a sloped side surface at an end of the rotating shaft; and
engaging the moving component with said sloped side surface so as to position the moving component in the axial direction of the rotating shaft when the component comes into contact with the sloped side surface.

16. The method according to claim 15, further comprising the step of controlling at least one of the moving component and the rotating shaft so as to satisfy the following equation:

$$V = 2\pi AN$$

wherein V is the horizontal movement speed of the moving component; N is the number of revolutions of the rotating shaft; and A is the distance from the center of rotation of the rotating shaft to the line of movement of the moving component.